

SOA真题Course5 PDF转换可能丢失图片或格式，建议阅读原文

https://www.100test.com/kao_ti2020/84/2021_2022_SOA_E7_9C_9F_E9_A2_98C_c50_84129.htm COURSE 5 MORNING SESSION APPLICATION OF BASIC ACTUARIAL PRINCIPLES SECTION A-WRITTEN ANSWER COURSE 5: Fall 2005 - 1 - GO ON TO NEXT PAGE Morning Session **BEGINNING OF EXAMINATION** COURSE 5 MORNING SESSION 1. (4 points) Describe the reasons an individual or a business would purchase: (a) life insurance (b) property and casualty insurance 2. (4 points) In developing medical claims costs for a group health plan: (a) Describe the factors to consider in selecting the appropriate data sources. (b) List the considerations in assessing the quality of data obtained from outside sources. (c) Describe considerations when normalizing historical data. COURSE 5: Fall 2005 - 2 - GO ON TO NEXT PAGE Morning Session 3. (6 points) Given the following information: Annual Normal Retirement Benefit: 1.5% of final earnings times service from hire Early Retirement Eligibility: Age 60 Early Retirement Benefit: Retirement Benefit accrued to date, reduced by 1/15 for each year before age 65 Normal form of Payment: Life Annuity, payable monthly Cost Method: Projected Unit Credit Actuarial Assumptions: Interest 6% Salary Increases 4% Pre-retirement death and terminations: None (12) a#1048581.62 : 11.61 (12) a#1048581.65 : 10.87 Participant data Employee Birth date Hire date 2004 earnings Brown 1/1/1965 1/1/2000 34,000 Smith 1/1/1940 1/1/1995 60,000 In prior years, the assumed retirement age

was 65. Effective with the January 1, 2005 actuarial valuation, the assumed retirement age is changed to 62. Calculate the change in the actuarial liability as of January 1, 2005 due to the change in the assumed retirement age. Show all work. 4. (4 points) Describe the expense philosophies used in pricing individual life insurance.

COURSE 5: Fall 2005 - 3 - GO ON TO NEXT PAGE Morning

Session 5. (6 points) (a) Explain why mortality experience varies from company to company. (b) Describe how breaking a group of lives into risk classes affects assumptions other than mortality. (c)

You are dividing an existing group into two risk classifications and are given the following information: Before Risk Classification After Risk Classification

Total Group	Group A	Group B	Mortality ratio
Weight 50%	Weight 25.0	Weight 25.0	0.0
100%	42.5	36.5	6.0
150%	37.5	0.0	37.5
175%	26.0	0.0	26.0

Product: Two-year term life

insurance policy Face amount: 100,000 ($q(50)$: 0.0035 $q(51)$: 0.0039

Interest: 6% per annum Expense loading: 0% Calculate the single

premium issued to a 50 year old from Group B before and after risk

classification. Show all work. COURSE 5: Fall 2005 - 4 - GO ON TO

NEXT PAGE Morning Session 100Test 下载频道开通，各类考试

题目直接下载。详细请访问 www.100test.com